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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,682	05/21/2001	Edgar N. Rudisill	SS3161USNA	4206

23906 7590 02/13/2002

E I DU PONT DE NEMOURS AND COMPANY  
LEGAL PATENT RECORDS CENTER  
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WILMINGTON, DE 19805

EXAMINER

MUSSER, BARBARA J

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 02/13/2002

6

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application N .

09/681,682

Applicant(s)

RUDISILL ET AL.

Examiner

Barbara J. Musser

Art Unit

1733

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.

- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other:

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6, and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams, Jr. et al.(U.S. Patent 3,716,317) in view of Henne et al.(U.S. Patent 4,164,437).

Williams Jr. et al. discloses forming multilayer filaments from different thermoplastic polymers by distributing separate molten polymer streams, filtering the separate streams, and then feeding the streams into spinnerets to spin the polymer into filaments.(Col. 2, l. 20-33) Although the reference does not specifically state the separate polymers come from separate extruders, one in the art would understand that the molten polymers came from separate extruders as such devices are used to form molten polymers, and since using the same extruder from both polymers would mix them. The reference does not disclose the spinneret having a plurality of separate low passages aligned so that the different polymer streams contact each other outside the die. Such dies are well-known and conventional in the filament forming art as shown for example by Henne et al. which discloses spinnerets having a plurality of separate low passages aligned so that the different polymer streams contact each other outside the die which it calls typical.(Col. 3, ll. 30-32) It would have been obvious to one skilled in

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the art at the time the invention was made to use such a spinneret since such is well-known and conventional in the art as evidenced by Henne et al.(Col. 3, ll. 30-32)

Regarding claims 2 and 6, Williams, Jr. et al. discloses the filaments can be passed through an air jet which elongates them.(Col. 4, ll. 61-68) One in the art would appreciate that this occurs immediately after exiting the die as the fibers must be soft for this to be able to occur and since the air jets are conventionally adjacent the die head when used.

Regarding claims 3 and 8, Henne et al. discloses conventional bi-component nozzles.(Figure 2, Col. 3, ll. 30-31)

Regarding claims 4 and 9, Henne et al. discloses conventional multi-component nozzles.(Figure 4, Col. 3, ll. 31-32)

3. Claims 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 1 above, and further in view of Appel(U.S. Patent 4,043,739).

The references cited above do not disclose distributing the resin to the filters using a coat-hanger die. Appel discloses a resin-distribution system for forming filaments(Col. 1, ll. 5-9) which uses a coat-hanger distribution system to distribute the resin since such a die delivers the resin at a constant residence time and constant pressure loss to all points in the die avoiding changes in the properties of the extruded fibers.(Col. 1, ll. 25-31; Col. 2, ll. 20-28) It would have been obvious to one skilled in the art at the time the invention was made to use a coat-hanger distribution system in the filament formation system of Williams Jr. et al. and Henne et al. since this would result

in resin having constant residence time and constant pressure loss to all the filters resulting in avoiding property changes in the extruded filaments. (Col. 1, ll. 25-31; Col. 2, ll. 20-28)

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hodan et al. (U.S. Patent 5,620,644) is cited to show multiple filters for filtering multiple polymer streams. (Figure 9)

Krauss et al. (U.S. Patent 5,866,050) is cited to show multiple filters for filtering multiple polymer streams. (Figure 6)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Barbara J. Musser** whose telephone number is **(703) 305-1352**. The examiner can normally be reached on Monday-Thursday 7AM-4PM, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael W. Ball can be reached on (703) 308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



BJM  
February 11, 2002



Michael W. Ball  
Supervisory Patent Examiner  
Technology Center 1700